

**Notice of Allowability**

Application No.

09/672,954

Examiner

Eric V Woods

Applicant(s)

PODDAR, BIMAL

Art Unit

2672

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview on 2 February 2005.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 29 September 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20050208</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### Examiner's Amendment

1. In view of applicant's interview with examiner and the SPE and the faxed amendment after appeal, the appeal stands dismissed and prosecution is closed; changes are **only** being made by Examiner's Amendment with the permission of applicant's representative so that the so-amended application may be passed to issue, as per examiner's proposal put forward to and accepted by applicant.
2. Authorization for this examiner's amendment was given in a telephone interview with Andrew Delizio (52806), attorney of record for applicant, on February 2, 2005, at 2 p.m. EST, and further on February 7, 2005 at 11:45 a.m. EST.
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
4. In the claims:
5. In claim 1,  
Line 8, replace the "." with --; and --  
Line 9, insert **"revising the texture usage mask of a subject texture prior to the subject texture being used by another context by bitwise ORing the texture usage mask with a context ID of the another context to produce a resultant new texture usage mask for the subject texture."**
8. Cancel claim 2.

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9. In claim 5,

Line 9, replace the "." with --; and--

Line 10, insert **"revising the texture usage mask of a subject texture prior to the subject texture being used by another context by performing a second logic operation with the texture usage mask and a context ID of the another context to produce a resultant new texture usage mask for the subject texture."**

10. Cancel claim 6.

11. In claim 9,

Line 10, replace the "." with --; and--

Line 11, insert **"revising the texture usage mask of a subject texture prior to the subject texture being used by another context by bitwise ORing the texture usage mask with a context ID of the another context to produce a resultant new texture usage mask for the subject texture. "** at the end of the line

12. Cancel claim 10.

13. In claim 13,

Line 11, replace "." with --; and--

Line 12, insert **"revising the texture usage mask of a subject texture prior to the subject texture being used by another context by performing a second logic operation with the texture usage mask and a context ID of the another context to produce a resultant new texture usage mask for the subject texture."**

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14. Cancel claim 14.

15. In claim 17,

Line 1, insert **"computer-implemented"** after the word "A" and before the word "method"

Line 14, replace "." with --; and--

Line 15, insert **" and paging out a texture from a texture memory based on a type of logical operation of the identification of the contexts processing the texture and the texture usage mask of the texture, wherein the type of logical operation is the same as the first type of logical operation."**

16. Cancel claim 18.

17. In claim 19,

Line 13, replace "." with --; and --

Line 14, insert **"a texture manager to page out a texture from the texture memory to the system memory based on a logical operation of an identification of the contexts to process the texture and the texture usage mask of the texture."**

18. Cancel claim 20 after the above changes.

19. Cancel claims 22-24.

20. Add the following as **new claim 25**

**"The method of claim 17, wherein the first type of logical operation is an "AND" operation."**

21. Add the following as **new claim 26**

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"The method of claim 17, wherein the inverted context ID is a single bit in an integer word."

22. Add the following as **new** claim 27

"The method of claim 19, wherein the identification of a context is represented in a single bit in an integer word."

***Allowable Subject Matter***

23. Claims 1, 3-5, 7-9, 11-13, 15-17, 19, 21, and 25-27 are allowed with all other claims being canceled.

24. The following is an examiner's statement of reasons for allowance: while the use of context masks for determining whether or not a context is used are known (see specifically US Patent 6,243,736 B1 to Diepstraten et al), and systems for bitwise masking and checking context are well-known and basic in the art (see Lazzarotto, "Bitwise Logical Operations in CA-Visual Objects"), and the combination of the two with the initially cited primary reference in the final rejection (US 5,818,469 to Lawless) would have rendered the independent claims obvious, the proposal put forward by Examiner such that the limitations of the first dependent claim for each set is incorporated into the independent claim (e.g. claim 2 is incorporated into claim 1, et cetera) renders the combination specific enough in scope that the combination is no longer obvious in view of the above art. As such, the claims are allowable over the prior art, because no references or combination thereof (except as set forth immediately above) suggests the use of multiple logical operations on flag bits and uses masks to determine texture context use on separate threads.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

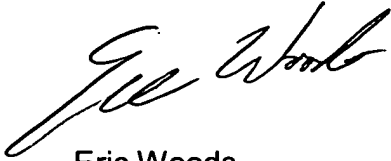
25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure – see above in **Reasons for Allowance**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric V Woods whose telephone number is 703-305-0263. The examiner can normally be reached on M-F 7:30-5:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

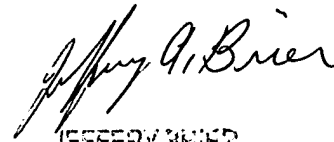
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Eric Woods

February 7, 2005



JEFFERY BRIER  
PRIMARY EXAMINER